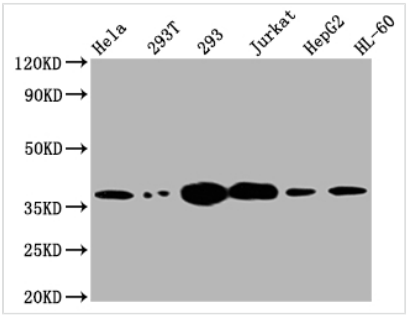
TYMS Recombinant Monoclonal Antibody

Product Code	CSB-RA584889A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P04818
Immunogen	A synthesized peptide derived from human Thymidylate Synthase
Species Reactivity	Human
Tested Applications	ELISA, WB; Recommended dilution: WB:1:500-1:5000
Relevance	Contributes to the de novo mitochondrial thymidylate biosynthesis pathway.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling; Metabolism
Gene Names	TYMS
Clone No.	2B2

Image



Western Blot
Positive WB detected in: Hela whole cell lysate, 293T whole cell lysate, 293 whole cell lysate, Jurkat whole cell lysate, HepG2 whole cell lysate, HL-60 whole cell lysate
All lanes: Thymidylate Synthase antibody at 1:2000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 36, 32, 27 kDa
Observed band size: 36 kDa

Description

The TYMS monoclonal antibody was produced through the immunization of animals with a synthesized peptide derived from human TYMS. B cells were isolated and fused with myeloma cells to generate hybridomas. The variable light and variable heavy domains of the TYMS antibody-producing hybridomas were then sequenced, and the TYMS monoclonal antibody gene was cloned into a vector. The recombinant vector was transfected into cells for cultivation, and the resulting TYMS recombinant monoclonal antibody was purified using

affinity chromatography from the cell culture supernatant. This highly specific TYMS recombinant monoclonal antibody has been tested and validated for use in ELISA and WB applications and can react with human TYMS samples.

The TYMS protein plays a critical role in DNA synthesis by catalyzing the conversion of deoxyuridine monophosphate (dUMP) to deoxythymidine monophosphate (dTMP) in the presence of a methyl group donor, 5,10-methylenetetrahydrofolate. This reaction is essential for the production of the nucleotide thymidine, which is a key component of DNA. TYMS is therefore a crucial enzyme in the synthesis of new DNA molecules during cell division and replication.